

**Discussion.**—Harry E. Alderson, San Francisco: The condition of this patient speaks for itself; it is a clear-cut case of leprosy and I think a very interesting one. In connection with the treatment of this disease I will mention that this summer I saw some interesting culture work in Honolulu by Brinkerhoff, Currie and Holman. These gentlemen have done an immense amount of work and have been successful in growing the lepra bacillus in pure culture. They now have it in the tenth generation. The next step will be the production of a bacillary emulsion for therapeutic purposes. They found that cases which had been treated with chaulmoogra oil for a while were not favorable ones from which to get material for inoculating tubes. I would like to ask Dr. Mead what treatment his patient has had.

G. W. McCoy, San Francisco: In regard to the subject of recent advances of our knowledge of leprosy, I am not sure that we are justified in speaking of actual progress. I had occasion a month or more ago to look up the literature of the subject, and I found that about a year and a half ago Clegg succeeded in cultivating an acid-fast bacillus from the spleen of the lepers who had died. He got the growth of the organism believed to be the leprosy bacillus by starting his cultures on a medium on which ameba were growing in symbiosis with the cholera vibrio. The mixed culture was exposed to a temperature of 55° to 60° C. and in this way the amebae and the cholera vibrios were killed off and a pure culture of the leprosy bacillus left. According to Clegg's work, it is surprisingly easy to cultivate the leprosy bacillus after it gets started. This work of Clegg's has been confirmed by scientists at the Leprosy Investigation Station at Honolulu. A man in New Orleans, whose name has slipped my mind, has gone over the same ground and has secured similar results. In reading the various reports one is left in some doubt as to whether all of these investigators have been dealing with the same organism. An interesting point is that Clegg has claimed that he produced leprosy-like lesions in guinea pigs. This is a remarkable thing, because practically all laboratory animals have resisted inoculation with leprosy. A Japanese worker claims to have produced the disease in dancing mice. He has carried it through several generations of these mice. His work indicates that it is very easy to produce the disease in these little rodents. If the test of time shows all of this work to have been properly controlled, we are no doubt on the eve of a very material advance in the treatment of leprosy.

Dudley Tait, San Francisco: I have followed the work done by Duval of Tulane University, who not only repeated Clegg's experiments, but went very much further. Clegg succeeded in growing the lepra bacillus in symbiosis with ameba, colon or typhoid. Duval obtained pure cultures of Hansen's bacillus on the banana, smeared with a 1% solution of cystein in agar. Duval's article in the current issue of the Journal of Experimental Medicine contains some beautiful illustrations of experimental leprosy lesions in dancing Japanese mice. I would like to hear from Dr. Mead what percentage of his leprosy colony gave a positive Wasserman reaction. This point is still unsettled among syphilographers, it being apparently admitted that the further one gets away from the tuberculous type, the more frequently is the Wasserman found to be positive.

W. C. Alvarez, San Francisco: The diagnosis of these cases is sometimes very difficult when the only lesion to be found is a small pigmented area, and there are no tubercles. If a small piece of the affected skin be lifted up, snipped off, and then ground up in a small mortar with a drop of salt solution, the bacilli can generally be found in the sediment. This is the method long used in Hawaii for confirming the diagnosis in cases to be sent to Molokai.

Louis D. Mead, San Francisco: Answering Dr. Tait's question in regard to the Wasserman reaction:

in two other cases we found a positive reaction in one and a negative in the other; thus far only three have been made. This patient has gained about 50 pounds in three months, has gained power in his legs and is on the mend. This is a pure type of the anesthetic form of leprosy, but most of these cases are the mixed type, i. e., the anesthetic form and the tubercular form.

October 11, 1910.

#### Presentation of a Case.

By WM. C. VOORSANGER, M. D., San Francisco.

I am presenting this case before you to-night because it is one of rather unusual interest. This patient has a very advanced tuberculosis of both lungs, and in connection with this a condition of the tongue that can undoubtedly be diagnosed as tuberculous ulcers. This condition is a very rare one outside of large centers where there are such great numbers of cases seen. The patient's family history is negative. Three years ago he was taken ill, had malarial fever which kept him in bed for three weeks. At that time he began to cough and had a bad cold on his chest and since then he has gone down hill slowly. About a year and one-half ago he noticed a small growth on the tongue, which gradually spread. Now there are two large ulcers, one on the left side of the tongue with sharp edges, infiltrated; the ulcer on the other side is a smaller one, and to-night he has called my attention to another one at the back of the tongue, which is just making its appearance. To my mind this is typically tuberculous; there are only two other things which it possibly could be and they are syphilis and epithelioma or carcinoma. We can exclude epithelioma, as it did not start as epithelioma usually starts; there are but a few small glands in the deep cervical region in back, the tongue is not fixed and has not developed enough in the past year and a half for carcinoma. Lues can be ruled out; it did not start as a syphilitic ulcer would. The man gives the history of having taken potassium iodid, in Texas, and it made absolutely no impression upon this condition. Sections have been made and tubercle bacilli have been found in large numbers in the sputum. I believe the case to be unquestionably tuberculosis of the tongue.

#### The Menace of Tropical Diseases to California.

By HERBERT GUNN, M. D., San Francisco.

Read at the meeting of Oct. 4th, 1910.

The importance of tropical medicine is rapidly becoming appreciated throughout the United States and where, only a few years ago, only an occasional worker could be found interested in the subject, now there are many. The subject appears in the curricula of many of the medical colleges, some of which have established departments of tropical medicine. The result of this growing interest is apparent in the increased number of tropical ailments being recognized in all parts of the country.

No state in the Union is more vitally affected by the group of diseases generally known as tropical diseases than California. Our intimate commercial intercourse with many tropical regions furnishes an abundance of diseases peculiar to those countries. Upon the completion of the Panama Canal our increased traffic on the Pacific will give rise to new and serious problems in the prevention of the dissemination of new diseases in the country. The climatic conditions here in California are in certain parts of the state quite favorable to the development of tropical diseases, so that we have no reason for believing that if introduced they will not flourish.

Several diseases have already gained a foothold: malaria, bubonic plague, amebic dysentery and probably hookworm disease.

#### Sources of Infection.

California has undoubtedly been receiving cases